JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS
JK

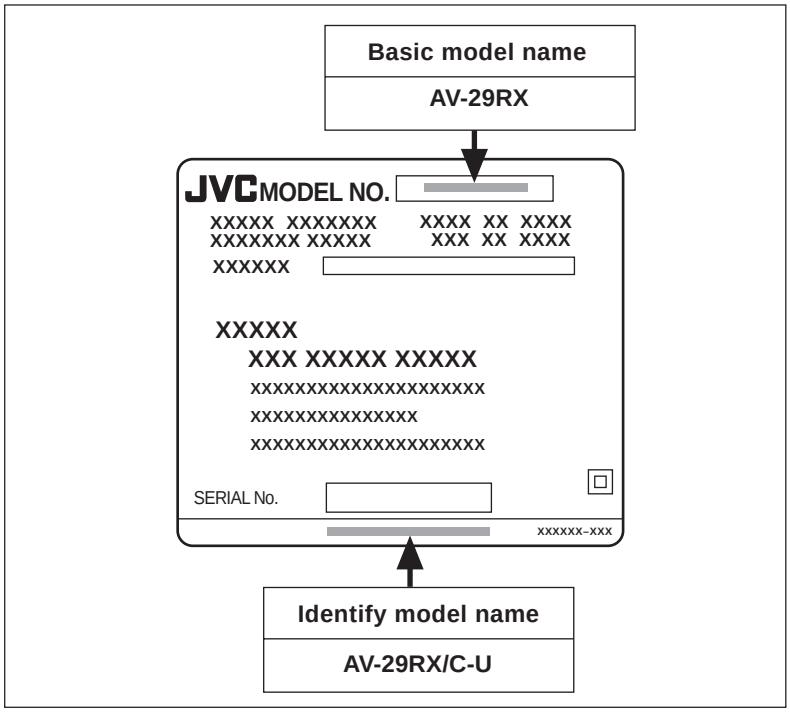
AV-29RX(C-U)

This service manual mainly consists of the following items:
• The items which differ from those for the AV-29RX(C) service manual.
• The initial value for each setting item.
For details other than those described in this manual, please refer to the following service manual.
Reference Service Manual: AV-29RX(C) Service Manual (No. 51729, Jul. 2000)

Note: The page in parentheses shows the one for the AV-29RX(C) service manual (No. 51729, Jul. 2000).

HOW TO IDENTIFY MODEL

While referring to the illustration given below, identify model name on the rating label affixed to the rear cover.



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PARTS DIFFERENCE TABLE

The different parts between AV-29RX(C) and AV-29RX(C-U) are described below:

⚠	REF. NO.	AV-29RX(C) PART No.	AV-29RX(C-U) PART No.	PART NAME	DESCRIPTION
■ **EXPLODED VIEW PARTS LIST (Page 36)**					
⚠	V01	A68QCU259X67Q	**A68QCU259X67N**	PICTURE TUBE	
⚠	16	LC20377-010B-H	**LC20413-003B-H**	RATING LABEL	
■ **PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 38-)**					
	—	SJK-1023A-H2	**SJK-1034A-H2**	MAIN PWB ASSY	
■ **PRINTED WIRING BOARD PARTS LIST [POWER & DEF PWB ASSY] (Page 41-)**					
	—	SJK-2022A-H2	**SJK-2031A-H2**	POWER & DEF PWB ASSY	
	R2527	———	**QRE141J-183Y**	C R	18kΩ 1/4W J
	R2528	———	**QRE141J-154Y**	C R	150kΩ 1/4W J
	R2529	———	**QRE141J-223Y**	C R	22kΩ 1/4W J
	R2530	———	**QRE141J-563Y**	C R	56kΩ 1/4W J
	R2595	———	**QRA14CF-8661Y**	MF R	8.66KΩ 1/4W F
	R2596	———	**QRA14CF-1371Y**	MF R	1.37kΩ 1/4W F
	R2597	QRE141J-273Y	———	C R	27kΩ 1/4W J
	C2593	———	**QETN2AM-106Z**	E CAP.	10μF 100V M
	C2594	QETN1AM-227Z	———	E CAP.	220μF 10V M
	C2595	———	**QETN1AM-227Z**	E CAP.	220μF 10V M
	D2593	———	**1SR124-400A-T2**	SI DIODE	
	D2595	———	**1SS133-T2**	SI DIODE	
	D2596	———	**1SS133-T2**	SI DIODE	
	Q2593	2SC1740S/QR/-T	———	SI TRANSISTOR	
	Q2594	———	**2SC2785/JH/-T**	SI TRANSISTOR	
	Q2595	———	**2SA933AS/QR/-T**	SI TRANSISTOR	
	K2904	CE41433-001Z	———	BEADS CORE	
■ **PACKING PARTS LIST (Page 47)**					
	1	LC10845-007A-H	**GG10044-017A-H**	PACKING CASE	
	7	CM47385-00B-H	———	POS/SERIAL LABEL	
⚠	7	———	**CP30702-001**	REC KEEPING CARD	
⚠	11	LCT0662-001A-H	———	DIGEST MANUAL	
⚠	—	———	**CM36141-011-H**	WARNING LABEL	
	—	———	**CM47692-001-H**	HYATT LABEL	
⚠	—	———	**QAM0055-001**	CONVERSION PLUG	

SPECIFICATIONS (Page 2)

Item		CONTENTS
Dimensions (W × H × D)		732mm × 588mm × 508mm
Mass		52kg
TV RF System		B, G, I, D, K, K1, M
Colour System		PAL, SECAM, NTSC3.58, NTSC4.43
Receiving Frequency	**VHF (L)**	46.25MHz ~ 168.25MHz
	VHF (H)	175.25MHz ~ 463.25MHz
	UHF	471.25MHz ~ 863.25MHz
	CATV	Mid (X-Z, S1-S10), Super (S11-S20), Hyper (S21-S41) bands receivable
Intermediate Frequency		
	VIF Carrier	38.0MHz
	SIF Carrier	33.5MHz(4.5MHz), 32.5MHz(5.5MHz), 32.0MHz(6.0MHz), 31.5MHz(6.5MHz)
Colour Sub Carrier Frequency		
	PAL	4.43MHz
	SECAM	4.40625MHz, 4.25MHz
	NTSC	3.58MHz / 4.43MHz
Power Input		AC110 ~ 240V, 50/60Hz
Power Consumption		193W (Max) / 137W (Avg)
Picture Tube		Visible size : 68cm measured diagonally
High Voltage		32.0kV ±1.5kV (at zero beam current)
Speaker & Audio Output		Open dome speaker 10W+10W, 10cm round x 2
Video Audio Input terminals		
Video1	**S-Video**	Y: 1Vp-p positive (Negative sync provided, when terminated with 75Ω) C: 0.286Vp-p (Burst signal, when terminated with 75Ω)
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (–4dBs), High impedance (RCA pin jack)
Video2	**Video**	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (–4dBs), High impedance (RCA pin jack)
Video3	**Video/Y**	V: Composite video 1Vp-p 75Ω (RCA pin jack) Y: Component video 1Vp-p 75Ω (RCA pin jack)
	Cb	Component video B-Y 0.7Vp-p 75Ω (RCA pin jack)
	Cr	Component video R-Y 0.7Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (–4dBs), High impedance (RCA pin jack)
Video4 **(Front terminal)**	**S-Video**	Y: 1Vp-p positive (Negative sync provided, when terminated with 75Ω) C: 0.286Vp-p (Burst signal, when terminated with 75Ω)
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (–4dBs), High impedance (RCA pin jack)
Video Audio Output terminal		
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (–4dBs), High impedance (RCA pin jack)
Aerial Input Terminal		75Ω unbalanced, Coaxial
Headphone Jack		Stereo mini jack (ø3.5mm)
AV Compu Link terminal		AV Compu Link II, mini jack (ø3.5mm)
Remote Control Unit		RM-C113 (AA/R06 dry battery × 2)

Design & specifications are subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

SETTING OF SYSTEM CONSTANT SET (Page 10)

Table 1

CONTENTS	VARIABLE RANGE	INITIAL SETTING VALUE
COLOUR	MULTI → TRIPLE → PAL	MULTI
MSP	YES → NO	NO
SUPER BASS	YES → NO	NO
CENTER SPEAKER	YES → NO	NO
TEXT	YES → NO	NO
BLUE BACK MUTE	YES → NO	NO
VOLUME LIMIT	YES → NO	YES
COLOUR AUTO	YES → NO	NO
TILT	YES → NO	YES
C-TRAP	1 → 0	1
E.M.C.	YES → NO	NO
N/S WHITE BACK	YES → NO	NO
7 LED SPEED	00 → 10 → 20 → ... → 1250 → 1260 → 1270	100

USER SETTING CONDITIONS (Page 10)

Table 2

PICTURE SETTING	
PICTURE MODE	BRIGHT
CONTRAST	CENTER
BRIGHT	CENTER
SHARP	CENTER
COLOUR	CENTER
TINT	CENTER
WHITE BALANCE	COOL
PICTURE FEATURES	
A.A.C	ON
AUTO VNR	AUTO
COLOUR SYSTEM	TV: According to preset CH
	VIDEO: AUTO PAL
ZOOM	REGULAR
ECO SENSOR	OFF
PICTURE TILT	CENTER
SOUND SETTING	
BASS	CENTER
TREBLE	CENTER
BALANCE	CENTER
AI VOLUME	ON
BBE	ON
SPATIALIZER	OFF

FEATURES	
SLEEP TIMER	OFF
ON TIMER	PR1 0:00
BLUE BACK	ON
CHILD LOCK	OFF
CHANNEL GUARD	--
AUTO SHUT OFF	OFF
VIDEO-3 SETTING	COMPONENT
INSTALL	
LANGUAGE	ENGLISH
AUTO PROGRAM	--
EDIT / MANUAL	PRESET CH only
	Others: blank
DEMO	
DEMO	OFF
OTHERS	
VOLUME	Appropriate sound level
CHANNEL PRESET	Refer to Operating Instructions.
CHANNEL POSITION	1 POSITION
SUB POWER	ON
ON SCREEN DISPLAY	POSITION INDICATION
TV/VIDEO	TV
SOUND SYSTEM	B/G

SERVICE ADJUSTMENTS

■ Initial Setting Value

■ SETTING OF VSM PRESET (Page 19)

[INITIAL SETTING VALUES OF VSM PRESET (SUB MENU 5. VSM PRESET)]

PICTURE MODE / ITEM	BRIGHT	STANDARD	SOFT
1. BRIGHT	+0	+0	+0
2. CONT	+17	+0	–4
3. COLOR	+0	+0	–1
4. SHARP	+0	+0	–3
5. TINT	+0	+0	+0

: Do not adjust.

■ SETTING OF WHITE BALANCE PRESET (Page 20)

[SETTING OF WHITE BALANCE PRESET (SUB MENU 6. WB PRESET)]

WHITE BALANCE / ITEM	COOL	MID	WARM
1. R DRIVE	0	–3	+26
2. B DRIVE	0	–23	–27

: Do not adjust.

■ VIDEO / CHROMA CIRCUIT ADJUSTMENT (Page 20)

CONTENTS		PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUTOFF	R	–60			
	G	–60			
	B	–60			
2. DRIVE	R	+0			
	B	+0			
3. BRIGHT	TV	0	+3	+1	—
	VIDEO	–1	+2	+2	—
	COMPONENT	–2			
4. CONT	TV	–15	0	0	—
	VIDEO	0	0	0	—
	COMPONENT	+2			
5. COLOUR	TV / VIDEO	+10	+18	+0	0
	COMPONENT	+8		+17	
6. TINT	TV	+6	+6	+7	0
	VIDEO	+6	+6	+14	0
	COMPONENT	+6		0	
7. BLACK OFFSET	R-Y	—	0	—	—
	B-Y	—	0	—	—
8. SHARP	TV	–14	–13	–12	—
	VIDEO	–8	–7	–9	—
	COMPONENT	–10			

: **Do not adjust.**

Adjustment of SUB COLOUR-II (Page 23)

Adjustment part	Description
5. COLOUR	
PAL COLOUR	Value **(A)** in the figure: Set to –**3V (W & G)**.
SECAM COLOUR	Value **(A)** in the figure: Set to –**5V (W & G)**.
NTSC 3.58 COLOUR	Value **(A)** in the figure: Set to **+3V (W & G)**.

Adjustment of SUB TINT-II (Page 24)

Adjustment part	Description
6. TINT	
NTSC 3.58 TINT	Value **(B)** in the figure: Set to **+4V (W & Cy).**

■ DEFLECTION CIRCUIT ADJUSTMENT (Page 26)

[DEFLECTION ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 4. DEF)]

Setting item	Adjustment name	Initial setting value					
		REGULAR		ZOOM		16:9	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SHIFT	Vertical shift	–5	–1	0	+1	0	0
2. V-SIZE	Vertical size	+7	–1	+36	+35	–39	–39
3. SUBTITLE	Subtitle	0	+1	–7	+7	0	0
4. H-CENT	Horizontal center	–10	+5	–1	–1	0	–1
5. H-SIZE	Horizontal size	–12	–1	–4	–4	0	–1
6. EW-PIN	Side pin correction	–3	+1	–4	–4	+2	0
7. TRAPEZ	Trapezoidal distortion correction	+4	–2	0	–1	0	+1
8. EW.COR.L	Corner pin correction Low side	–2	0	–1	–1	+1	+1
9. EW.COR.H	Corner pin correction High side	–2	0	0	0	+1	+1
10. V.S-COR	Vertical size correction	+13	0	0	0	0	0
11. V-LIN	Vertical Linearity	+2	–1	–1	–1	+1	0
12. H-BLK-R	Horizontal Blanking Right	0	0	0	0	+77	0
13. H-BLK-L	Horizontal Blanking Left	0	0	0	0	+2	0
14. V-EHT	V size correction level caused by EHT change	–4	0	0	0	0	0
15. H-EHT	H size correction level caused by EHT change	–3	0	0	0	0	0
16. EHT-GAIN	Size correction gain caused by EHT change	+3	0	0	0	0	0

: Do not adjust.

■ AUDIO CIRCUIT ADJUSTMENT (Page 30)

[AUDIO ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 3. AUDIO)]

Setting item	Variable range	Fixed value
1. ERROR LIMIT	000H ~ FF0H	100H
2. A2 ID THR	00H ~ FFH	14H
3. BASS	–17 ~ +17	+0
4. TREBLE	–17 ~ +17	+0

: Do not adjust.

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